

## ABSTRACT OF THE DISCLOSURE

5 An improved tough, transparent polymer alloy  
comprised of 90 to 20 weight percent of a brittle  
polymer with a weight average molecular weight  
greater than 180,000; 0 to 60 weight percent of a  
rubbery polymer; 0 to 80 weight percent of a ductile  
polymer; and between greater than 0.4, i.e. between  
10 0.5 and 3 weight percent of a plasticizer, i.e.  
mineral oil which resides in the brittle polymer.  
The brittle polymer can have molecular weights  
between 220,000 and 300,000, and may be as high as  
400,000. In one of the preferred embodiments the  
15 brittle polymer is a copolymer of styrene and methyl  
methacrylate which copolymer ranges between 50 and  
55 weight percent, the rubbery polymer is 0 weight  
percent, the ductile polymer is a styrene butadiene  
block copolymer ranging between 45 and 50 weight  
20 percent, and the mineral oil is 1.5 weight percent.  
Notched IZOD impact strength ranges between 1.0 to  
6.0 ft-lb./in., preferably between 2.0 and 4.5 ft-  
lb./in. The haze can be less than 1.5% or it can be  
between 1 and 4%.

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